

## Digital level transmitters

# DTM/N

---



# Technical Specifications

## Pressure measuring range (mH<sub>2</sub>O)

	1 ... 5	> 5 ... 20	> 20 ... 250
<b>Overpressure</b>	3 bar	3 x FS (≥ 3 bar)	3 x FS
<b>Burst pressure</b>	> 200 bar	> 200 bar	> 200 bar
<b>Accuracy, (1), (± % FS)</b>	≤ 0.25	≤ 0.1	≤ 0.1
<b>Thermal shift, (± % FS/°C)</b>			
Zero point -5...50°C	≤ 0.06	≤ 0.03	≤ 0.015
Span -5...50°C	≤ 0.015	≤ 0.015	≤ 0.015
<b>Long term stability, (2)</b>	< 0.5% FS / < 4 mbar	< 0.2% FS / < 4 mbar	< 0.1% FS / < 0.2% FS

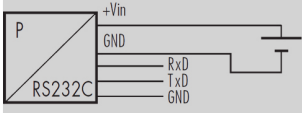
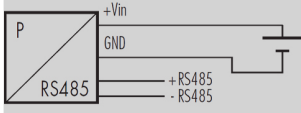
(1) Zero based accuracy according to DIN16086, incl. hysteresis and repeatability at ambient temperature

(2) 1 year (typ. / max.), the long term stability can be improved by ageing (burn-in) the sensor

## Temperature range

<b>Operating temperature</b>	-5...80 °C
<b>Process temperature</b>	-5...80 °C
<b>Storage temperature</b>	-10...80 °C

## Electrical specifications

	RS232C	RS485
<b>Resolution</b>	0.01% FS	0.01% FS
<b>Circuit diagram</b>		
<b>Power supply</b>	5...30 V DC	5...30 V DC
<b>Current consumption</b>	< 7 mA	< 7 mA
<b>Integration time</b>	1 ms...20 s, adjustable	1 ms...20 s, adjustable
<b>Identification</b>	Each DTM has a unique serial number, as well as a user-definable description	Each DTM has a unique serial number, as well as a user-definable description

## Qualifications

	Description	Level	Typical interferences
<b>EN 61000-4-2</b>	Electrostatic discharge	4 kV contact 8 kV air	
<b>EN 61000-4-3</b>	Irradiated RF	10V/m (0.08...1 GHz)	Radio sets, wireless phones
<b>EN 61000-4-4</b>	Transients (burst)	2 kV	Motors, valves
<b>EN 61000-4-6</b>	Conducted RF	10 V (0.15...80 MHz, 3 s)	Frequency converters

---

## Physical specifications

<b>Materials</b>	
Transducer	Stainless steel (316L / 1.4435), titanium (Gr. 2), (1)
Housing	Stainless steel (316L / 1.4404), titanium (Gr. 2)
Seals	Viton (Standard), EPDM, Kalrez
Cable	PUR, PTFE, PE

(1) Hastelloy (C-276) on request

## Equipment

---

### Overview

<b>10.00.0091</b>	Accessories overview

## Additional documents

---

### Operating manual

	Article number
<b>10.00.0124</b>	DEB013

## Ordering information

		X. XXXX.	XXXX.	XX.	XXX
<b>Type</b>	DTM/N	40			
<b>Pressure type</b>	Gauge	1			
	Absolute (vacuum)	2			
<b>Pressure measuring range</b>	Any pressure measuring ranges between 0...1 mH <sub>2</sub> O and 0...250 mH <sub>2</sub> O available	XX			
<b>Process connection</b>	Closed, (Fig. 1)	55			
	Open, (Fig. 2)	56			
	G 1/4 M	11			
	G 1/2 M, (Fig. 3)	13			
	Customized connections available	XX			
<b>Electrical connection</b>	Connectable version, IP 68, (Fig. 4), (1)		07		
	PE cable, IP 68, (2), (3)		13		
	PUR cable, IP 68, (2), (4)		15		
	PTFE cable, IP 68, (2)		21		
	Customized connection available		XX		
<b>Output signal</b>	RS232C		46		
	RS485		47		
<b>Accuracy</b>	≤ ± 0.25 % FS (≤ 500 mbar / > 600 bar)			1	
	≤ ± 0.10 % FS (> 500 mbar...≤ 600 bar)			2	
<b>Temperature range</b>	-5...50 °C compensated (allowed process temperature: -5...50 °C)			4	
<b>Option 1</b>	Special oil filling: ASEOL Food (for food applications)				G
	Special oil filling: Halocarbon (for oxygen applications)				H
<b>Option 2</b>	Electronics packed in gel: Gauge pressure				C
	Electronics packed in gel: Absolute pressure				D
<b>Option 3</b>	Version titanium				K
	Seals: Viton (standard)				U
	Seals: EPDM				S
	Seals: Kalrez				T
	Ageing				Z

(1) Connector with required cable has to be ordered separately (KART100)

(2) Please specify the required cable length and medium

(3) Suitable for drinking water (food approved)

(4) For operating temperature > 50°C, PE or PTFE cable must be used

# Technical drawings

## Dimensions

Fig. 1: Closed version

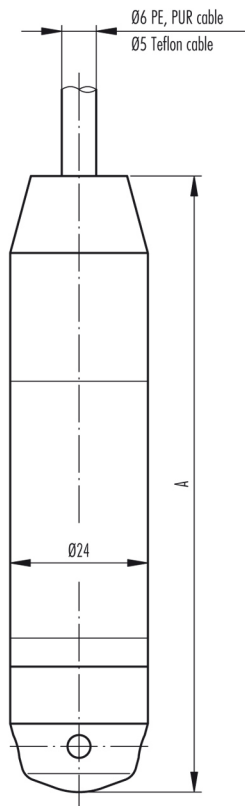


Fig. 2: Open version

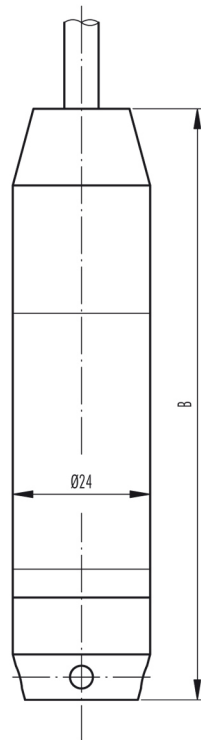
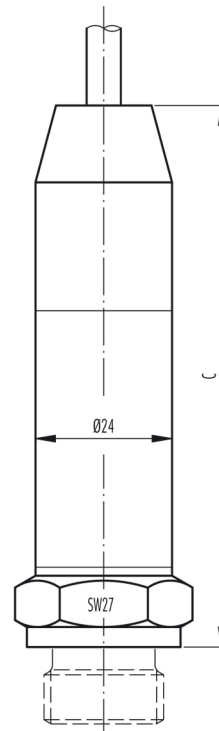


Fig. 3: with process connection



Standard

	A [mm]	B [mm]	C [mm]	D [mm]	Weight [g]
without ballast weight	157	153	on request*	on request*	approx. 200
with ballast weight	244	240	on request*	on request*	approx. 460

\*C: Depending on process connection

\*D: Depending on process connection or version

Colour	RS485	Colour	RS232C
white	+Vin	white	+Vin
yellow	GND	yellow	GND
brown	+RS485	brown	RxD
green	-RS485	green	TxD

Specifications may change without notice.

**STS Great Britain:**  
 STS Great Britain Ltd.  
 Box 3942 | Warwick | CV34 9AE, United Kingdom  
 contact@stssensors.com | www.stssensors.co.uk

**STS Headquarters, Switzerland:**  
 STS Sensor Technik Sirmach AG  
 Rütihofstrasse 8, 8370 Sirmach, Switzerland  
 sales@stssensors.com | www.stssensors.com

**STS France:**  
 STS France  
 844 Route de la Caille, 74350 Allonzier la Caille, France  
 info-fr@stssensors.com | www.stssensors.fr

**STS Germany:**  
 STS Sensoren Transmitter Systeme GmbH  
 Poststrasse 7, 71063 Sindelfingen, Germany  
 info-de@stssensors.com | www.stssensors.de

**STS Italy:**  
 STS Italia s.r.l.  
 Via Gesù 5, 20090 Opera (Milano), Italy  
 info-italia@stssensors.com | www.stssensors.it